

ABSTRACT OF THE DISCLOSURE

An apparatus and method for immobilizing a vehicle chassis frame in its free state atop a frame fixture so as to establish a net datum position of the chassis frame for enabling a net datum feature to be fabricated in a location net to the fixture and in design-intent position on the chassis frame. The apparatus does not compressingly clamp any portion of the chassis frame in order to avoid deforming or displacing the chassis frame and to avoid building stress into the chassis frame or incurring springback of the chassis frame. The chassis frame is interposed between a pair of opposed pads used for contacting opposite portions of the chassis frame. A work support connects to each of the opposed pads for advancing the opposed pads from a retracted position to an advanced position to find opposite portions of the chassis frame. The advancing device advances the pair of opposed pads into contact with the chassis frame without measurably displacing the chassis frame despite the tolerance variations. Once the opposed pads find their respective opposite reference contact surfaces on the chassis frame, a locking mechanism is provided for locking the pair of opposed pads in place in the advanced position so as to immobilize the chassis frame therebetween. Subsequently, a forming and piercing mechanism may be used to fabricate locating features net to the frame fixture and in design-intent position on the chassis frame.